

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) A method of determining an optimum set of write parameters for a laser device for writing to an optical storage medium, the method comprising acts of:

defining a test region of the optical storage medium;

using a laser device having an operating set of write parameters, writing a ~~predetermined data pattern~~ reference data pattern using a reference set of write parameters of the laser device to the test region, and a measurement data pattern using a measurement set of write parameters of the laser device to the test region;

measuring jitter values for the ~~predetermined~~ reference and measurement data patterns; and

selecting an optimum operating set of write parameters of the laser device for writing data to the optical storage medium in dependence upon the measured reference and measurement jitter values, the optimum set of write parameters minimizing the jitter

value for the optical storage medium,

~~characterized in that the step of writing a predetermined data pattern to the test region comprises the steps of:~~

~~writing a reference data pattern using a reference set of write parameters of the laser device to the test region; and~~

~~writing a measurement data pattern using a measurement set of write parameters of the laser device to the test region.~~

2. (Currently amended) A The method as claimed in claim 1, wherein each set of write parameters includes a power level of the laser device.

3. (Currently amended) A The method as claimed in claim 2, wherein the power level of the laser device varies over the writing of the measurement data pattern.

4. (Currently amended) A The method as claimed in claim 3, wherein the power level of the laser device rises from a minimum level to a maximum level over the writing of the measurement data pattern.

5. (Currently amended) A—The method as claimed in claim 4, wherein the power level of the laser device rises in discrete steps over the writing of the measurement data pattern.

6. (Currently amended) A—The method as claimed in ~~any one of~~ claim 2, wherein the power level of the laser device over the writing of the reference data pattern is fixed.

7 (Currently amended) A—The method as claimed in claim 1, wherein the measured jitter values relate to an average of jitter values of the measurement and reference data patterns.

8 (Currently amended) A—The method as claimed in claim 1, wherein the optical medium is a disc, and wherein the reference and measurement data patterns form an alternating pattern on a single track of the disc.

9. (Currently amended) A—The method as claimed in claim 1, wherein the optical medium is a disc, and wherein the reference and measurement data patterns are written on consecutive tracks of the disc.

10. (Currently amended) A ~~The~~ method as claimed in claim 1, wherein the optical medium is a disc, and wherein the reference and measurement data patterns are written on ~~neighbouring~~neighboring tracks of the disc.

11. (Currently amended) Apparatus for determining an optimum power level for a laser device for writing to an optical storage medium ~~(1)~~ having a test region defined thereon, the apparatus comprising:

an optical writing device ~~(12)~~ operable to write ~~a predetermined data pattern (2,3) to a test region of an optical medium (1) using an operating set of write parameters~~ a reference data pattern using a reference set of write parameters to the test region and a measurement data pattern using a measurement set of write parameters to the test region;

a measurement device ~~(14)~~ operable to measure jitter values for ~~a predetermined data pattern (2,3)~~ the reference measurement data patterns on an optical medium (1); and

a power controller ~~(10)~~ operable to select an optimum operating set of write parameters of the laser device ~~(12)~~ for writing data to the optical storage medium ~~(1)~~ in dependence upon

measured reference and measurement jitter values, the optimum set of write parameters minimizing the jitter value for the optical storage medium (1),

~~characterized in that the optical writing is operable to:~~
~~write a reference data pattern using a reference set of write parameters to the test region; and~~
~~write a measurement data pattern using a measurement set of write parameters to the test region.~~

12. (Currently amended) ~~Apparatus~~ The apparatus as claimed in claim 11, wherein each set of write parameters includes a power level of the laser device.

13. (Currently amended) ~~Apparatus~~ The apparatus as claimed in claim 12, wherein the optical writing device (14) is operable to vary the power level of the laser device during writing of the measurement data pattern.

14. (Currently amended) ~~Apparatus~~ The apparatus as claimed in claim 13, wherein the power level of the laser device rises from a minimum level to a maximum level over the writing of the

measurement data pattern.

15. (Currently amended) ~~Apparatus~~—The apparatus as claimed in claim 14, wherein the power level of the laser device rises in discrete steps.

16. (Currently amended) ~~Apparatus~~—The apparatus as claimed in any one of the claim 12, wherein the power level of the laser device over the writing of the reference data pattern is fixed.

17. (Currently amended) ~~Apparatus~~—The apparatus as claimed in claim 11, wherein the measured jitter values relate to an average of jitter values of the measurement and reference data patterns.

18. (Currently amended) ~~Apparatus~~—The apparatus as claimed in claim 11, wherein the optical medium is a disc, and wherein the reference and measurement data patterns form an alternating pattern on a single track of the disc.

19. (Currently amended) ~~Apparatus~~—The apparatus as claimed in claim 11, wherein the optical medium is a disc, and wherein the

reference and measurement data patterns form are written on consecutive tracks of the disc.

20. (Currently amended) ~~Apparatus~~ The apparatus as claimed in claim 11, wherein the optical medium is a disc, and wherein the reference and measurement data patterns are written on neighboring tracks of the disc.